

## AMENDMENTS TO THE SPECIFICATION

*Please amend paragraph 0015 as follows:*

[0015] Under an embodiment of the invention, a processor architecture may ~~supports~~ support control speculation by providing two instructions, the instructions being a speculative load instruction (which may, for example, be designated as ld.s) and a speculation check instruction (which may, for example, be designated as chk.s). A processor utilized in an embodiment of the invention may include an Intel Itanium or Intel Itanium 2 processor. Under an embodiment of the invention, a processor does not generate a fault if a speculative load (ld.s) causes a hardware exception, such as a misaligned access exception. Instead, the processor invalidates the result of the load by making a particular setting, such as setting the NaT (not a thing) bit representing the 65th bit of an integer register for the Intel Itanium Processor Family (IPF) architecture. The speculation-check instruction (chk.s) checks the NaT bit and branches to a recovery code if the speculative load fails, indicated by the NaT bit being set. The control speculation feature generally allows a compiler to schedule a load speculatively above program branches upon which the load is control dependent. Under an embodiment of the invention, a control speculation feature or process is further used to implement read barriers in a managed runtime environment.

*Please amend paragraph 0032 as follows:*

[0015] Portions of the present invention may be provided as a computer program product, which may include a machine-readable medium having stored thereon instructions, which may be used to program a computer (or other electronic devices) to

perform a process according to the present invention. The machine-readable medium may include, but is not limited to, floppy diskettes, optical disks, CD-ROMs (compact disk read-only memory), and magneto-optical disks, ROMs (read-only memory), RAMs (random access memory), EPROMs (erasable programmable read-only memory), EEPROMs (electrically-erasable programmable read-only memory), magnet or optical cards, flash memory, or other type of media / machine-readable medium suitable for storing electronic instructions. ~~Moreover, the present invention may also be downloaded as a computer program product, wherein the program may be transferred from a remote computer to a requesting computer by way of data signals embodied in a carrier wave or other propagation medium via a communication link (e.g., a modem or network connection).~~